

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF SECRETARY

In the Matter of)	
)	
Annual Assessment of the Status of)	CS Docket No. 96-133
Competition in the Market for the)	
Delivery of Video Programming)	

COMMENTS OF
THE SATELLITE BROADCASTING AND
COMMUNICATIONS ASSOCIATION OF AMERICA

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I. INTRODUCTION.

The Satellite Broadcasting and Communications Association of America ("SBCA") is pleased to submit to the Commission its comments in the above-referenced Notice of Inquiry dealing with competition in the video market place. This is the third year that the SBCA has filed comments in this annual proceeding which is mandated by the 1992 Cable Act. This filing will show that the Direct-To-Home ("DTH")satellite industry has taken important strides since the SBCA's first filing in 1994. However it is clear that the DTH industry, while having made significant advances in the market place, is still in its initial stage of competitive market penetration. The ultimate success of the industry as a truly viable competitor will only be more evident in several more years as

we witness broader consumer acceptance of this very high state-of-the-art television technology.

The SBCA is the national trade association which represents the DTH industry. The Association's membership is vertical, representing the major companies within each industry segment. They include all the providers of Direct Broadcast Satellite services, the major programming and premium services, manufacturers of equipment for DTH services of all antenna sizes, equipment distributors, program packagers for C-Band services (to be described below), and approximately 2,500 DTH retail dealers of all sizes who are the point of sale for consumers

The significant market promise of the DTH industry and the high speed data rates which satellites offer today are also attracting new cutting edge technology companies to the SBCA. These firms envision the convergence potential of DTH including interactivity, both modem-delivered with copper wire return and full, two-way broadband, ultra high speed Internet access, integrated DTH-consumer services, and interactive on-screen programming. Thus not only is SBCA membership on the upswing, the make-up of new member companies is changing as rapidly as new technological developments arrive in the market place.

In its NOI, the Commission is asking for information on how the Telecommunications Act of 1996 is affecting competition in program delivery. A principal feature of the Act

regarding the development of DTH competition is Section 207 which preempts local private and governmental restrictions on the use of DTH systems by consumers. We will discuss this issue below. Suffice it to say at this juncture that rapid Commission implementation of the rules mandated by Section 207 is a vital factor in the ability of millions of consumers to have access to DTH satellite services unencumbered by needless local regulation.

What Comprises Direct-To-Home Satellite Service?

As the Commission has stated in Paragraph 13 of its NOI, there are two types of DTH services available to the public. Direct Broadcast Satellite comprises subscription television services delivered by a sole provider who has entered into agreements with programmers to distribute their program products directly to consumers through transponders (or satellites) owned or leased by the provider. The antennas, receiving and decoding technology are licensed by the DBS provider to multiple manufacturers. Both the services and equipment are made available together for sale from a variety of retail sources including DTH dealers, consumer electronics retailers, and mass merchandisers.

The second DTH receiving technology is the venerable C-Band service comprising antennas 7-10 feet in size. Unlike DBS, C-Band program service is not distributed on a sole provider basis. Instead, the consumer acquires a system, usually from a retailer specializing in DTH products, and then contracts with a "program packager" for

subscription program services.¹ These program packagers are entities who make contractual agreements with individual programmers to market their services as part of a package, usually designed by the packager, and available in different configurations and rates depending on the viewer's choice. Packagers are typically third parties who may be either DTH equipment distributors or programmers who also operate program packaging arms as part of their normal program distribution business. We are careful to note in this regard that regardless of the size of the antenna, whether C-Band (7-10'), high power Ku-Band DBS (18"), or medium power Ku-Band DBS (one meter), all home satellite services are referred to as "DTH "

II. MEASURING "EFFECTIVE COMPETITION" FROM DTH PROVIDERS.

There is a major structural difference, however, in the competitive context within which the DTH satellite industry operates which distinguishes satellite from other MVPD's.

DTH satellite companies compete among themselves for subscribers, as well as with local MVPD's.

Non-satellite multichannel video program distributors are local service providers, and the competition to those services is measured on the basis of their local service areas i.e., "effective competition." In the cable industry, for example, "overbuilds" are extremely rare, and the only potential local competition will come from the telephone

¹C-Band system owners can also receive programming in-the-clear for which no subscription is required.

companies, private cable (SMATV) or wireless (MMDS/LMDS) operators. But realistically, true local competition on a nationwide basis in individual, local service areas is still years away.

However, because of the national footprint of satellites in all frequency bands which deliver programming to the home, the services offered by the five DBS providers, as well as C-Band, are available to consumers all over the U.S. Thus intra-industry competition is a unique market place aspect distinguishing DTH from other MVPD's.

As we discussed in our comments last year in the Commission's competition assessment NOI, cable operators face an inherently greater difficulty in measuring "effective competition" in their respective service areas because of the number of DTH competitors who may have subscribers there. There is no means within a respective service area for a cable operator to identify which DTH providers are serving individual DTH households. This situation is further compounded by the fact that DIRECTV and USSB operate from the same orbital slot however consumers must subscribe to each of them separately. Lastly, because C-Band programming is generally acquired from out-of-state "packagers," it is virtually impossible to identify which packagers are serving an individual service area.

However, to assist cable operators in determining whether they face "effective competition" in their service areas or they simply want to know "how close is the

competition," SBCA/Media Business Corp has developed the Effective Competition Tracking Reports as part of the SkyTRENDS program.² ECTR's provide accurate DTH subscriber counts on an aggregate basis of all antenna types and services by zip code within any given cable service area. It includes services subscribed to from out-of-state packagers by C-Band consumers, distinguishes any overlap among DIRECTV/USSB subscribers at the same address, as well as all subscribers to the other service providers. The information is provided to cable operators requesting the service on a fee basis and has proven to be very useful for those who have participated in the program.

III. DTH MARKET PENETRATION.

Appendix A to these comments is a state-by-state break-out of DTH satellite penetration of all types. The data shows that DTH subscribership has increased significantly since the Commission's last report on "effective competition," however the industry is far from reaching its goal as a full-fledged video service provider on either a regional or national service area basis.

Appendix A shows state-by-state the total number of TV households and DTH subscriber counts together with respective TVHH penetration as of July 1, 1996. The

² SkyTRENDS is the DTH satellite economic and research effort conducted in partnership between SBCA and Media Business Corp, a Denver-based media and consulting firm. In addition to the ECTR's, SkyTRENDS also publishes SkyREPORT, a monthly economic newsletter on the DTH industry, and conducts the twice yearly SkyFORUM investment conferences in New York City for the financial community and trade press.

table below compares these statistics with what we reported last year as of June 1, 1995.

	<u>July 1, 1996</u>	<u>June 1, 1995</u>	<u>Change</u> (13 months)
TV Households	97.485 million	95.363 million	2%
DTH Subscribers	5.465 million	3.22 million	69.7%
DTH/TVHH	5.6%	3.5%	60.0%

Commensurate with this trend has also been an increase in DTH penetration in states across-the-board. The states leading in penetration are again generally in the South or West of the U.S. with Maine and Vermont the exceptions. The principal states both above and below the 5.6% mean are as follows.

	<u>Above Mean</u>			<u>Below Mean</u>	
	<u>1996</u>	<u>1995</u>		<u>1996</u>	<u>1995</u>
Montana	18.33%	12.45%	Washington, DC	1.08%	0.40%
Vermont	16.94%	10.39%	New Jersey	1.35%	0.66%
Wyoming	14.79%	10.10%	Massachusetts	1.45%	0.64%
Mississippi	13.46%	8.55%	Rhode Island	1.66%	1.18%
Arkansas	12.00%	6.85%	Connecticut	1.88%	1.72%

Furthermore, the potential for industry growth has fuelled the interest of other satellite-related or telecommunications companies which heretofore have not been engaged in the DTH satellite business. AT&T has made a \$135 million investment in DIRECTV with an option to acquire a further interest. MCI paid \$682 million at auction to acquire a DBS orbital slot at 110 degrees and has negotiated for the construction of

satellites which reportedly will be ready by the end of 1997. PanAmSat and Intelsat, both involved in the transmission of international satellite signals, have applied to the Commission for authorization to transmit DTH services. Even RBOC's from time to time have expressed their interest in the DTH industry, although to date none have made an up-front investment in a DTH satellite service provider.

IV. DTH CONSUMER PROFILE.

In order to ascertain more clearly the demographics of DTH system owners and their motives for subscribing to DTH satellite services, the SBCA, through its Satellite Marketing Council, each year commissions Bruskin/Goldring Research, Inc., a New Jersey-based consumer research firm, to conduct a survey to examine the characteristics and attitudes of DTH satellite system users. The 1995 study - of which some of the results are presented below - consisted of telephone interviews with 1,019 users of C-Band, DSS (the service offered by DIRECTV/USSB) and Primestar systems. The demographic profiles of the respondents are attached as Appendix B.³

While no singular characteristic applies uniquely to DTH users compared with subscribers to other video technologies, the data indicates that a large portion of DTH system owners appear to be moderately affluent, educated, rural-suburban dwellers, as compared to the national average in each category. Further comparing the

³Home Satellite Dish Ownership Study, Bruskin/Goldring Research, Inc., September, 1995.

Bruskin/Goldring results with available data on cable subscribers reveals the following national demographic comparisons:

	<u>DTH</u>	<u>Cable</u>	<u>National</u>
Age	44.7	43.9	43.7
Income	\$55,600	\$43,100	\$35,300
Location:			
Rural	64%	28.6%	25. %
Suburban	12. %	39.2%	----
Urban	24. %	32.1%	----
			75. %

Bruskin/Goldring also asked respondents to prioritize their major reasons for buying a satellite system. The data show differing reasons, depending on the type of system acquired (DSS, Primestar or C-Band). Below is a sampling of some, but not all, of the reasons derived from the survey:

27% of C-Band respondents favored "More Programming Variety," compared with 21% for Primestar subscribers and 19% for DSS owners;

34% of Primestar subscribers stated "Cable Not Available," compared to 25% for both C-Band and DSS;

22% of Primestar subscribers offered "Choices of Programming Providers" as their reason for acquiring, compared to 19% of DSS owners and 16% of C-Band.

Only a small percentage of respondents selected either "Low Cost/More Affordable," "Poor Over-The-Air TV," or "Not Satisfied With Cable Company" as reasons for acquiring their systems. Furthermore, in response to customer satisfaction queries, respondents indicated that 87% of C-Band owners, 99% of DSS owners and 98% of Primestar subscribers were "Very/Somewhat" satisfied with their satellite systems.

Bruskin/Goldring also surveyed respondents on the availability of cable service in their areas. The results in the table below indicate that a large percentage of DTH viewers have cable available to them (See Appendix C)

	<u>C-Band</u>	<u>DSS</u>	<u>Primestar</u>
	%	%	%
Cable Available	72	57	23
Current Subscribers	23	28	3
Former Subscribers	31	19	12
Never Subscribed	17	10	8

We believe the data clearly reveals that DTH users select satellite for video delivery because of its superior programming characteristics as compared to other MVPD's.

To further buttress this view, new SBCA/SkyTRENDS research indicates that, as a group, DTH satellite viewers are willing to spend more than cable subscribers for monthly television programming, as well as pay-per-view. For example, the average individual monthly revenue, including pay-per-view, per DTH subscriber is \$38, compared to \$31 for cable⁴. SkyTRENDS research also reveals that DBS viewers

⁴SkyREPORT, April 1996

spend on average 4-5 times as much per month for pay-per-view movies than do cable subscribers⁵.

In other words, those consumers who have chosen DTH as their means of receiving video programming have found it more satisfying than other service providers, particularly once they have made the initial investment of acquiring a system. Coupled with the clarity of digital video delivery (to the receiver) and digital audio, the availability of choice over a broad range of program services made possible by compression, and the subsequent greater channel capacity, DTH satellite is a very attractive alternative to more traditional means of video distribution.

While projections of future subscriber bases varies among investment analysts, DTH companies and the trade press, and are not possible to gauge accurately, estimates by the investment community of subscribership by the end of the decade continue to increase. For example, at SBCA's Spring SkyFORUM conference in 1995, analysts projected 8-10 DTH million subscribers by the year 2000. At the Fall SkyFORUM in that same year, analysts raised their projections to 10-12 million subscribers. Now, in 1996, projections have been further raised to over 15 million. In any event, it will be at that time that the DTH industry can be considered a viable competitor in the context of the video market place which the Commission has envisioned.

⁵SkyREPORT, May 1996

V. DTH AND NEW TECHNOLOGIES.

Satellite delivery of interactive data services is widespread today, contrary to the public utterances of some competitors to DTH, and plans are well under way for significantly expanded offerings. It is important to note at this point that the vast majority of what consumers consider "interactivity" is purely interaction with information stored in a set-top box or on a computer hard drive. The data is generally obtainable through an on-line service or, for example, as an on-screen guide provided by a video service. In any event, whatever the data, it can be instantly updated on a national basis via satellite.

The acquisition of information through an "interactive" process is accomplished by a request for information by the consumer to a database and its subsequent broadband delivery directly to the home (set-top box, VCR, computer, etc.) by satellite. But the pertinent, yet least understood, part of the process is the act of requesting the information. That simply entails the use of a telephone line - whether by handset or modem - to make the request from the database. It is the broadband delivery of data to the home where satellite transmission outshines any other distribution method.

A typical satellite transponder is capable of delivering up to 40 Mbps of broadcast data with a 432 Gigabyte capability over a 24-hour period. Thus a single transponder can deliver the equivalent of the contents of 720 CD-ROM's. This substantial data delivery capacity is utilized today for up-to-the-minute program guides such as StarSight and

by the end of the year will be used to support an interactive platform from DIRECTV and Microsoft.

This vast satellite capacity belies, for example, recent claims by the Cable Telecommunications Association (CATA) - whose members compete with DTH satellite - entitled "Important information from your local cable company," asked,

"Will my DBS system put me on the 'information superhighway'?"

NO. Satellite service is a 'one-way' technology....
For many services that will be featured on the
'superhighway' - like interactive games or broadband
access to the Internet - you need the 'two-way'
capability only a high-speed, broadband cable
hook-up will be able to provide."

Nothing could be further from the truth. Nonetheless, this reference is instructive because it preys on the common misperception that satellite is not, and never will be, capable of providing the type of interactive services that consumers supposedly want.

In fact, the DTH satellite industry offers the only truly national high speed connection to the World Wide Web when it comes to Internet access and real-time file transfers to home personal computers. The DIRECPC system from Hughes Network Systems uses a 21-inch antenna and allows consumers to download Internet files at 400 Kbps - some 14 times faster than a 28.8 Kbps phone modem and several times faster than a costly telco-provided ISDN connection. This satellite-delivered "Information Superhighway" connection is available today to any home in America and is far less

costly than the investment of billions of dollars necessary to build a fiber-based infrastructure.

Recent FCC actions regarding the allocation of spectrum in the 28 GHz band will also allow the introduction of even more robust interactive satellite services within the next several years. Several companies have applications pending with the Commission for authority to construct, launch and operate satellite communications systems in this band. They will offer a variety of high speed "bandwidth-on-demand" interactive communications links. While the proposals vary, they will allow consumers to not only download data at ultra-fast speeds, but also transmit information via satellite at speeds ranging from 384 Kbps to T-1 (1.544 Mbps).

We view the CATA "information campaign" simply as background noise aimed at consumers not familiar with advances in the video market place but who may be potential DTH subscribers. When the facts are examined, DTH satellite will offer greater capacity at greater speed for all consumers at significantly less cost -- that's the real message in the national debate over the consumer and interactivity.

VI. TECHNOLOGICAL ISSUES.

The Commission is also asking for comments on developments in video equipment compatibility and how they would affect ease of consumer usage, as well as industry views on Section 304 of the Act dealing with the commercial availability of set-top

boxes through third party manufacturers. While equipment compatibility has been an important issue of discussion and negotiation since the passage of the 1992 Act, Section 304 adds a more complex dimension to matter of consumer access to video services. Regardless of these complexities, however, the over-riding concern of the DTH industry is to maintain signal security in order to protect copyright holders' interest in programming. As the Commission well knows, the history of the development and availability to the public of intellectual property is fraught with constant attempts to steal copyrighted works, no matter what the delivery medium.

While equipment compatibility was originally deemed to be an issue which applied solely to the cable industry, it was clear that its application was more far-reaching in that it affected any video transmission technology which utilized proprietary receiving and decoding equipment in the home. SBCA recognized the impact of the issue on satellite receiving equipment -- where the decoding technology is integral to the home receiving equipment -- and participated in the Cable-Consumer Compatibility Advisory Group (C3AG) where the new interoperability format was being negotiated. To date however we are not aware of any total resolution of outstanding issues, and the Commission has yet to promulgate any new regulations in this area.

Section 304 of the 1996 Act purportedly takes the consumer facilitation issue a step further by ordering the Commission to promulgate rules making third party manufactured set-top boxes available for purchase to the public. SBCA recommends that the Commission take a cautious approach to what could be seemingly appear on

the surface as an innocuous issue. It is far from it. While Section 304 mandates the creation of FCC rules, it also adds the important proviso that,

"(b) PROTECTION OF SYSTEM SECURITY. - The Commission shall not prescribe regulations under subsection (a) which would jeopardize security of multichannel video programming and other services offered over multichannel video programming systems, or impede the legal rights of a provider of such services to prevent theft of service." (SEC. 629. COMPETITIVE AVAILABILITY OF NAVIGATION DEVICES)

This subsection goes to the heart of the concerns of the DTH industry.

Signal security, as the Commission well knows is the lifeblood of the success of the DTH satellite industry. Had there not been a proprietary supplier of decoding technology in 1987 when the C-Band industry suffered its bleakest days due to signal theft, it would have been practically impossible for the vast change-out to the new decoding technology to have occurred in the field as it did. C-Band as we know it today would probably not exist.

In any event, while the decoding technologies for all DTH services remain uncompromised, signal security and the protection of the DTH subscriber base by service providers remain a primary concern of the SBCA. We are troubled by the implications of Section 304. Conceivably, consumers could, under this section, acquire receiving and tuning equipment from a third party manufacturer and demand only the decoding device from the service provider

The two-part configuration of a universal set-top box and proprietary decoder presents too many uncontrollable opportunities for interference with and manipulation of an

encoded signal by unauthorized parties. By the same token, the manufacturer of the universal set-top box would have no incentive nor any legal obligation to change out the now compromised equipment on a mass scale because that company's interest would be solely in commercial sale of the set-top box, with no vested interest in maintaining the security of the system. Thus, such a configuration could prove to be a dangerous environment for secure signal reception

The SBCA urges the Commission to pay careful heed to Section 304(b) where the Congress, in its wisdom, has recognized the importance of maintaining signal integrity. The success of any DTH service provider - and thus the industry's ability to compete in the video market place on a viable basis - depends on signal security. That concept must remain inviolable, and our industry is determined not to let history repeat itself - at least within the DTH delivery environment. SBCA looks forward to working with the Commission in this area, as well, in order to ensure that DTH technology continues to achieve its full potential as the highest quality video service available to consumers.

VII. ZONING AND COVENANT REGULATIONS.

As the Commission is well aware, the DTH industry has suffered a significant competitive disadvantage from abusive local zoning ordinances and homeowners association rules and covenants which discriminate against or ban outright DTH antennas of all types.

As a recent example, the July 17, 1996, edition of The Capital, Annapolis, MD, (see Appendix D) cited the town manager of Hancock, MD, declaring that satellite dishes are not only ugly, they are bad for the town's budget because their widespread use may be harmful to cable TV. The article reports that the town manager stated, "There could be a possibility that if you wanted a satellite dish, there may be a license you'd have to pay or something like that to raise revenues." This attitude is typical in many local governmental organizations where video competition may not hold a high priority among local officials.

In response to petitions filed by SBCA in 1991, and Hughes Network Systems in 1992, coupled with the Congressional mandate of Section 207 of the Telecommunications Act of 1996, the Commission is preparing to implement new rules in this area by August 8, 1996 in accordance with the terms of the Act.

Section 207 prescribes FCC rules which would prevent local governments or homeowner association covenants from "impairing" a consumer's ability to receive video programming from a DBS satellite system. SBCA has filed comments which we cite here as reference in the Commission's proceeding relating to zoning and private covenants (IB Docket 95-59).

SBCA commends the Commission for its prompt action in promulgating these proceedings. It is important that they go into effect as soon as possible in order to

both block these artificial barriers to competition with more established MVPD's as well to enhance the overall opportunity of the DTH industry to enter all consumer markets with the equal ability to gain new subscribers regardless of the place of residence of the consumer.

VIII. CONCLUSION.

In the short span of three years, it is clear that the Commission's policies to encourage diversity, choice and competition in the video market place are beginning to take effect. The growth in DTH subscribers, driven principally by the advent of smaller dish antennas and a greater variety of programming and channel capacity due to digital compression, portends a healthy future for the DTH industry.

The SBCA/MBC SkyTRENDS program will continue to develop further economic research and data on the industry's progress while making its ECTR reports as widely available to cable operators as the occasion demands. Concurrently, the Bruskin/Goldring surveys commissioned by the SBCA Marketing Council offers a profile of consumer attitudes toward DTH. This year, for the first time, non-DTH owners will be included as part of the survey, and we will be pleased to share the results with the Commission.

But barriers to true local competition still exist in the form of egregious and burdensome local government zoning ordinances targeted against DTH system

owners, as well as stringent and often inflexible rules enforced by home owners association and private covenants. The SBCA commends the Commission for the important steps it is taking to alleviate these burdens through the pre-emption of any restrictions on DBS systems which impair a consumer's ability to view satellite television programming. The entire DTH industry is awaiting what will hopefully be a more competitive market place as a result of this important Commission proceeding.



Andrew R. Paul, Senior Vice President
**Satellite Broadcasting and Communications
Association of America**

July 19, 1996

Total DTH Subscribers by State

(As of July 1, 1996)

2419,240
124,611 - 61.47%
117,159 - 5.80%

1,181,240
69,422 - 5.91%
88,297 - 7.31%

402,400
223,452 - 55.46%
41,249 - 10.24%

319,920
172,192 - 53.82%
58,656 - 18.33%

242,130
144,988 - 59.88%
21,941 - 9.06%

1,717,920
864,053 - 50.36%
94,723 - 5.51%

1,894,920
1,016,851 - 53.66%
119,582 - 6.31%

3,491,510
2,170,109 - 62.15%
179,318 - 5.14%

6,575,640
4,124,243 - 62.87%
200,031 - 3.13%

214,210
153,095 - 71.47%
36,277 - 16.94%

2,235,210
1,637,381 - 72.81%
32,432 - 1.45%

376,900
293,183 - 77.80%
6,259 - 1.65%

1,233,510
1,007,459 - 81.00%
22,783 - 1.88%

4,598,630
3,318,069 - 72.39%
159,459 - 3.50%

4,198,420
2,531,094 - 60.32%
179,017 - 4.27%

4,273,700
2,294,528 - 53.69%
163,605 - 3.85%

1,081,590
602,729 - 55.71%
82,118 - 7.59%

616,690
404,086 - 65.52%
49,013 - 7.95%

1,031,430
585,595 - 56.77%
73,726 - 7.59%

2,011,240
1,075,872 - 53.49%
167,911 - 8.35%

924,090
539,793 - 58.42%
110,908 - 12.00%

1,234,510
703,522 - 56.99%
101,227 - 8.12%

578,710
326,440 - 56.41%
46,888 - 8.10%

1,572,200
841,580 - 53.55%
89,129 - 5.89%

585,310
292,257 - 49.93%
41,508 - 7.09%

554,060
424,594 - 76.63%
35,000 - 6.32%

2,027,410
630,700 - 31.11%
359,122 - 17.71%

2,027,410
630,700 - 31.11%
359,122 - 17.71%

2,027,410
630,700 - 31.11%
359,122 - 17.71%

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	TV HH-Jan. 1996	DTH Subs July 1, 1996	% of HH w/DTH	Cable Subs Oct 1, 1995	% of HH w/Cable
Alabama	1,572,620	163,828	10.42%	948,096	60.29%
Alaska	154,160	10,510	6.82%	101,005	65.52%
Arizona	1,512,260	89,129	5.89%	841,580	55.65%
Arkansas	924,050	110,908	12.00%	539,793	58.42%
California	10,697,410	359,122	3.36%	6,570,706	61.42%
Colorado	1,431,210	84,070	5.87%	902,352	63.05%
Connecticut	1,213,810	22,783	1.88%	1,007,459	83.00%
D.C.	228,180	2,462	1.08%	99,400	43.56%
Delaware	261,750	12,121	4.63%	229,974	87.86%
Florida	5,510,530	290,849	5.28%	3,972,662	72.09%
Georgia	2,572,520	216,384	8.41%	1,613,789	62.73%
Hawaii	379,670	1,795	0.47%	404,029	106.42%
Idaho	402,900	41,249	10.24%	223,452	55.46%
Illinois	4,274,700	147,291	3.45%	2,294,528	53.68%
Indiana	2,138,000	165,605	7.75%	1,231,353	57.59%
Iowa	1,081,980	82,118	7.59%	602,729	55.71%
Kansas	970,950	73,726	7.59%	585,595	60.31%
Kentucky	1,418,160	143,217	10.10%	902,697	63.65%
Louisiana	1,522,980	93,437	6.14%	969,889	63.68%
Maine	467,770	52,462	11.22%	304,472	65.09%
Maryland	1,826,770	53,722	2.94%	1,112,929	60.92%
Massachusetts	2,235,210	32,432	1.45%	1,627,381	72.81%
Michigan	3,491,810	179,318	5.14%	2,170,109	62.15%
Minnesota	1,717,910	94,723	5.51%	860,053	50.06%
Mississippi	932,140	125,445	13.46%	483,591	51.88%
Missouri	2,011,340	167,911	8.35%	1,075,872	53.49%
Montana	319,920	58,656	18.33%	172,192	53.82%
Nebraska	616,690	49,013	7.95%	404,086	65.52%
Nevada	554,060	35,000	6.32%	424,594	76.63%
New Hampshire	416,070	23,404	5.63%	362,160	87.04%
New Jersey	2,838,110	38,407	1.35%	2,139,150	75.37%
New Mexico	578,710	46,868	8.10%	326,449	56.41%
New York	6,575,640	206,031	3.13%	4,129,243	62.80%
North Carolina	2,685,580	270,156	10.06%	1,607,029	59.84%
North Dakota	242,130	21,941	9.06%	144,988	59.88%
Ohio	4,196,420	179,017	4.27%	2,531,094	60.32%
Oklahoma	1,234,500	100,227	8.12%	700,522	56.75%
Oregon	1,181,240	86,297	7.31%	698,422	59.13%
Pennsylvania	4,558,630	159,459	3.50%	3,318,069	72.79%
Rhode Island	376,860	6,269	1.66%	293,183	77.80%
South Carolina	1,332,250	129,222	9.70%	765,758	57.48%
South Dakota	268,200	29,254	10.91%	152,605	56.90%
Tennessee	1,960,650	197,372	10.07%	1,152,259	58.77%
Texas	6,475,270	424,694	6.56%	3,148,496	48.62%
Utah	585,310	41,508	7.09%	282,257	48.22%
Vermont	214,210	36,277	16.94%	153,095	71.47%
Virginia	2,415,260	168,539	6.98%	1,549,250	64.14%
Washington	2,019,860	117,159	5.80%	1,241,611	61.47%
West Virginia	695,860	77,969	11.20%	477,895	68.68%
Wisconsin	1,894,920	119,582	6.31%	1,016,854	53.66%
Wyoming	175,590	25,962	14.79%	120,553	68.66%

TV Households as of January 1996, from A.C. Nielsen Co.
 Basic Cable Subscribers as of Oct. 1, 1995 from Warren Pub., Inc., *Television & Cable Factbook*, Volume No. 64, 1996.
 Note: Information supplied by system operators.
 DTH subscribers as of July 1, 1996, supplied by DTH service providers to SkyTRENDS of MEDIA BUSINESS CORP.

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 and the Satellite Broadcasting and Communications Association

PROFILE

	<u>LARGE</u>			
	<u>DISH</u>	<u>DSS</u>	<u>PRIMESTAR</u>	<u>NATIONAL</u>
<i>BASE: Total Respondents</i>	(506)	(257)	(272)	(1019)
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
<u>MARITAL STATUS</u>				
Married	91	81	83	58
Single	6	10	7	22
Divorced/Widowed/Separated	3	7	9	19
<u>HOUSEHOLD COMPOSITION</u>				
Number Of Members	3.0	2.8	3.1	2.8
Children 12-17	21	18	30	19
Children 6-11	13	15	21	16
Children Under 6	13	15	22	17
<u>AGE</u>				
18-34	16	19	30	36
35-44	25	28	31	20
45-54	30	30	21	14.7
55 Or Older	27	20	17	27
Mean	46.8	45.4	42.1	43.7

PROFILE (Continued)

	<u>LARGE</u> <u>DISH</u>	<u>DSS</u>	<u>PRIMESTAR</u>	<u>NATIONAL</u>
<i>BASE: Total Respondents</i>	(506)	(257)	(272)	(1019)
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
<u>EDUCATION</u>				
High School Grad. Or Less	44	34	54	60
Some College	26	23	27	19
College Graduate	28	39	15	19
Trade/Technical	1	3	2	1
<u>INCOME</u>				
Under \$20K	4	3	13	22
\$20K - \$29.9K	11	5	21	17
\$30K - \$39.9K	19	11	16	11
\$40K - \$49.9K	16	8	18	7
\$50K - \$74.9K	18	19	16	10
\$75K - \$99.9K	8	9	2	3
\$100K Or More	7	22	3	3
Refused	17	24	12	26
MEAN (\$000)	52.3	73.8	40.7	35.3
<u>RACE</u>				
White	95	93	91	79
African American/Black	2	2	3	10
Hispanic	1	*	2	6
Asian	1	*	1	1
Other	1	3	3	1